

FIG. 1



FIG. 2A

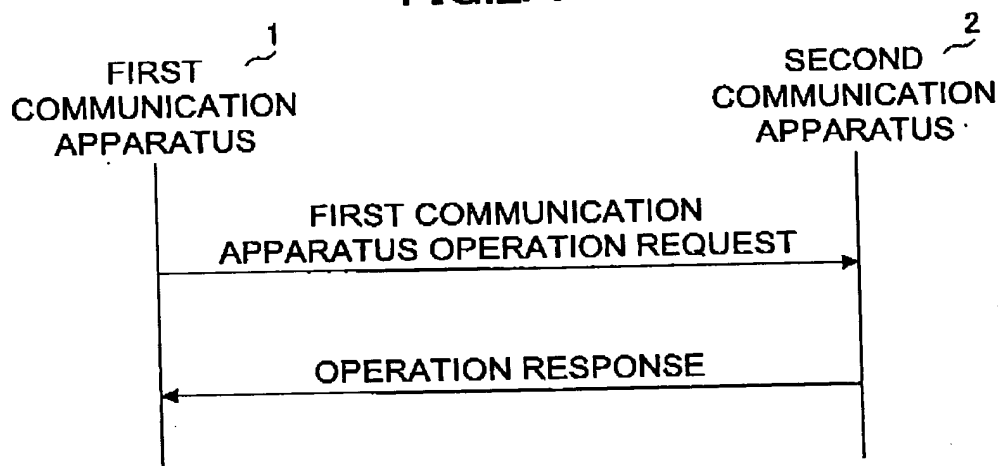


FIG. 2B

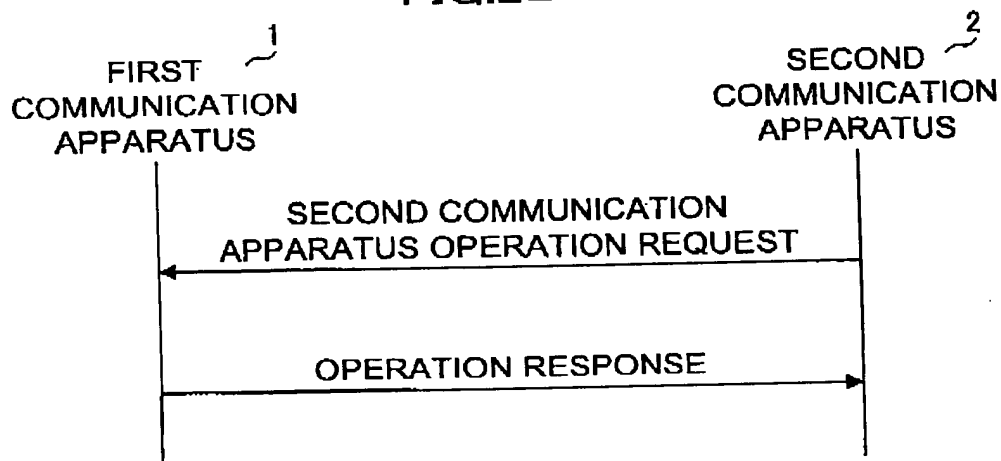


FIG.3

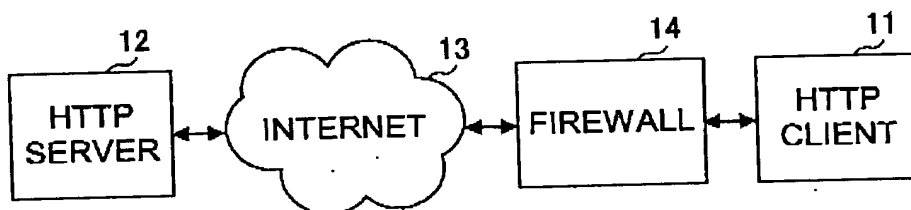


FIG.4A

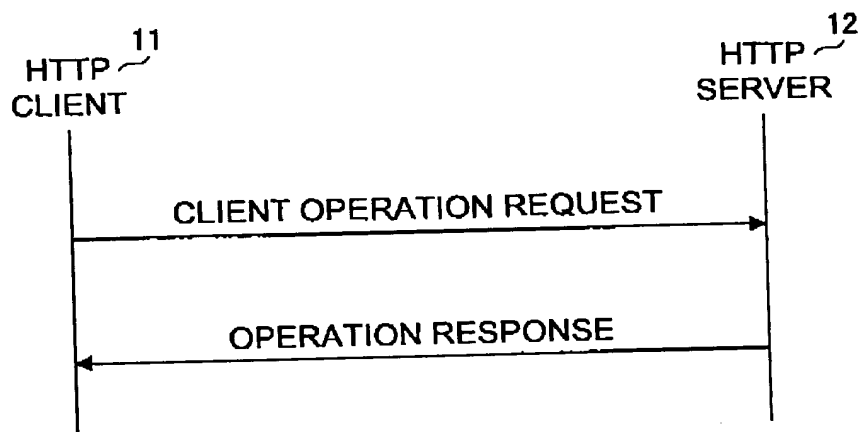


FIG.4B

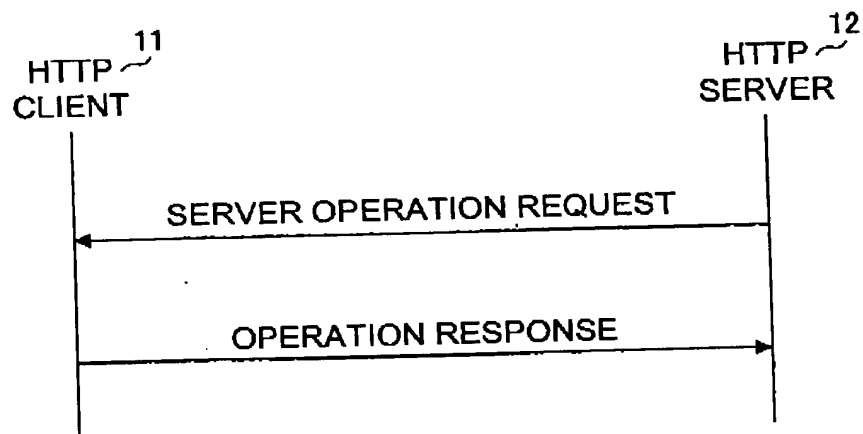


FIG.5

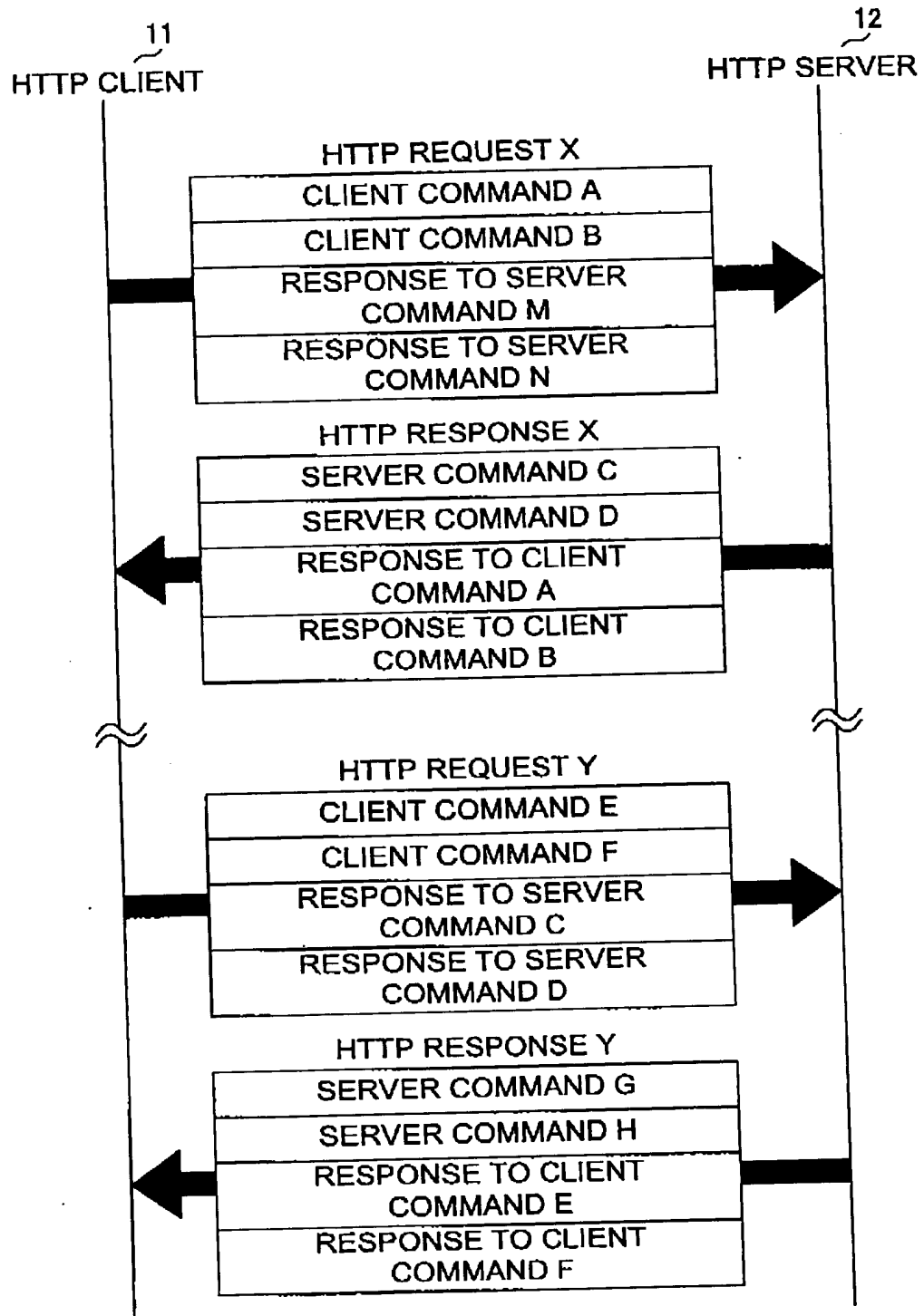


FIG.6

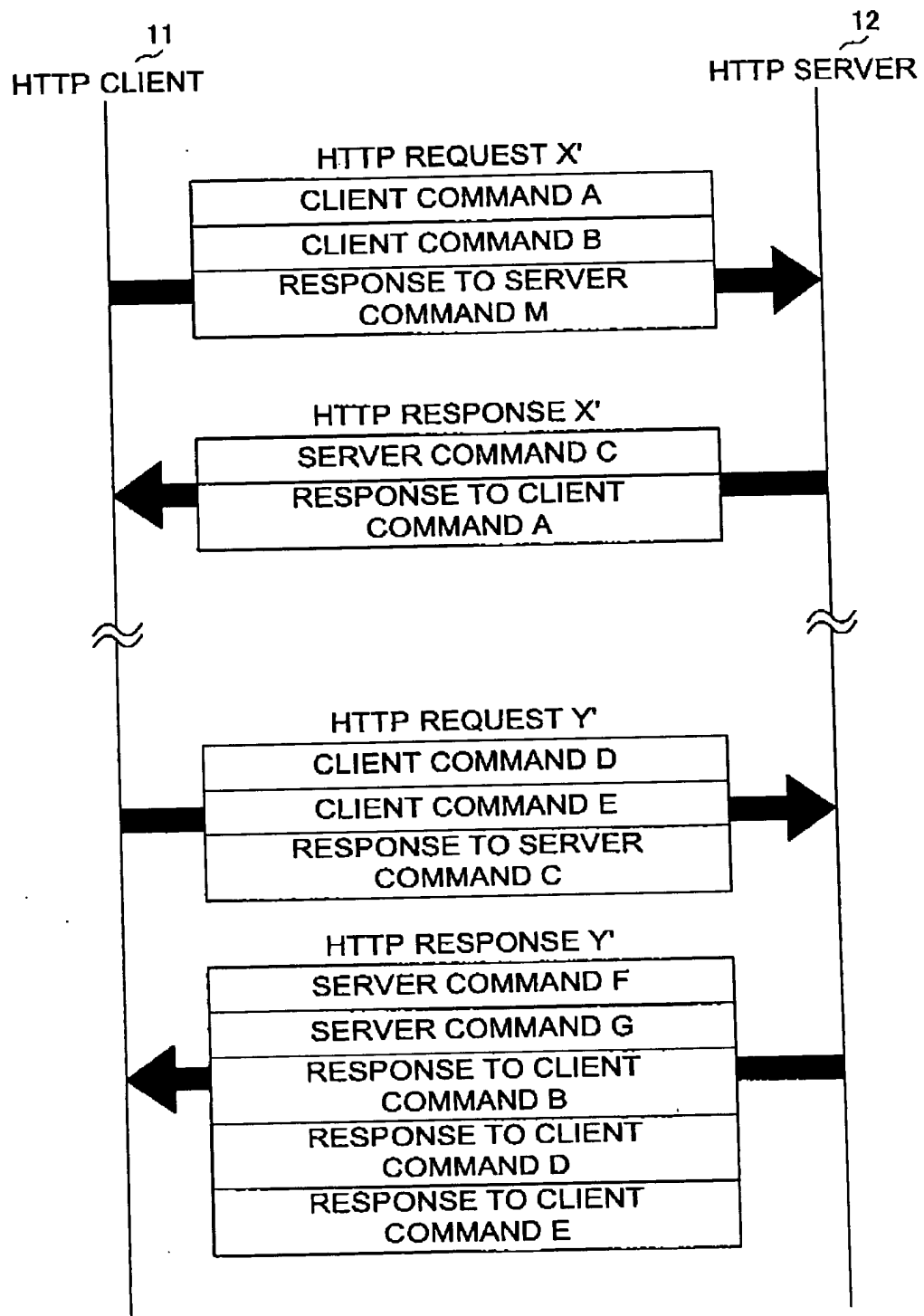


FIG. 7

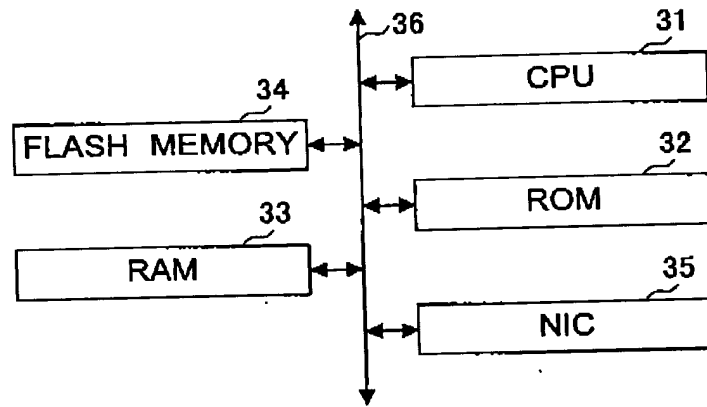
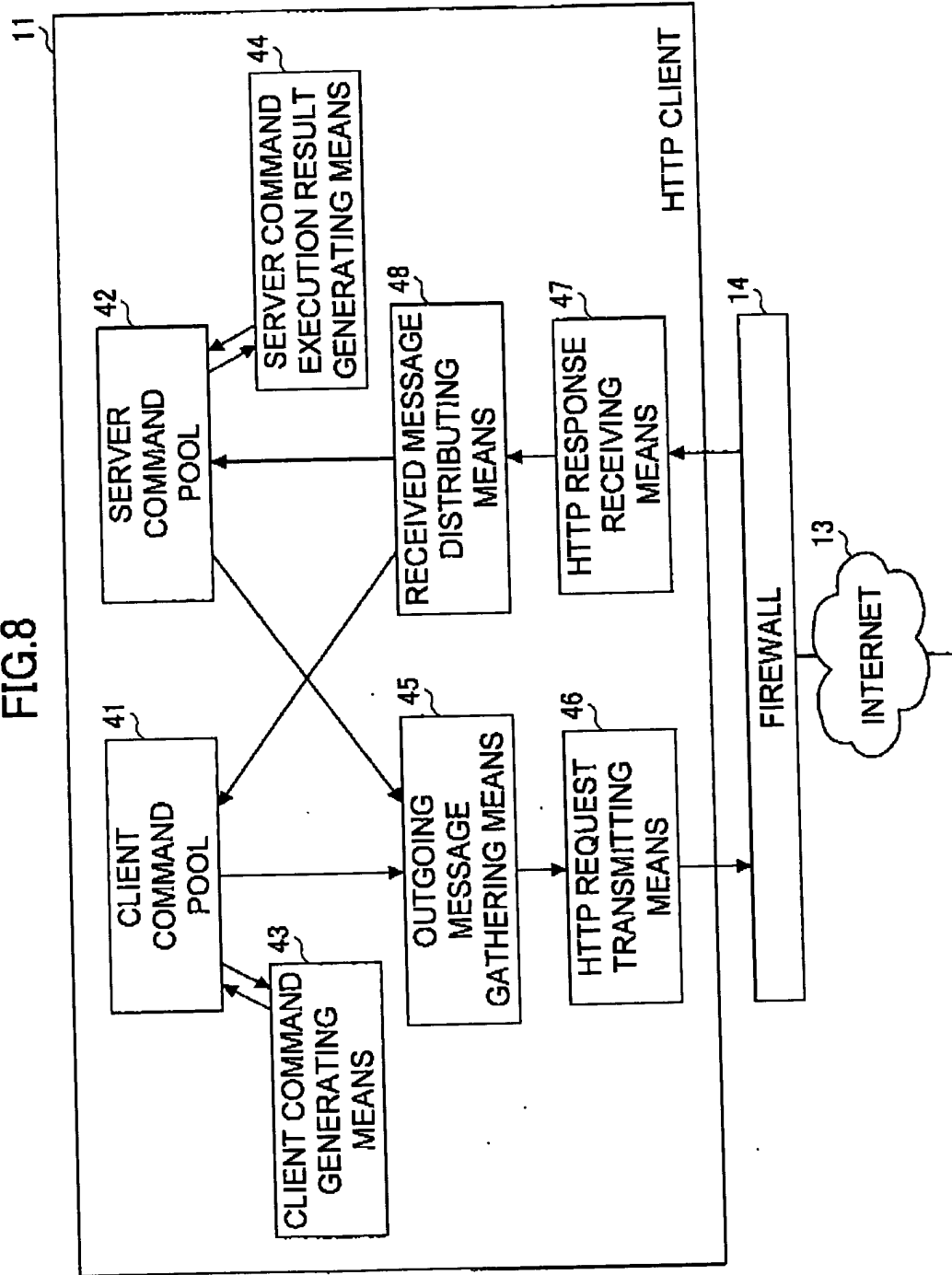


FIG.8



## FIG.9

### CLIENT COMMAND SHEET IN HTTP CLIENT

COMMAND ID  
METHOD NAME (e.g., TROUBLE NOTIFICATION)  
INPUT PARAMETER (e.g., TROUBLE CONTENT)  
STATUS (INITIAL VALUE: NOT SENT)  
CLIENT COMMAND EXECUTION  
RESULT NOTIFYING DESTINATION  
OUTPUT PARAMETER  
(BLANK UNTIL RESPONSE IS ACQUIRED)

## FIG.10

### SERVER COMMAND SHEET IN HTTP CLIENT

COMMAND ID  
METHOD NAME (e.g., COUNTER ACQUISITION)  
INPUT PARAMETER  
STATUS (INITIAL VALUE: NOT SENT)  
OUTPUT PARAMETER  
(BLANK UNTIL PROCESS IS COMPLETED)  
SERVER COMMAND NOTIFYING DESTINATION

FIG.11  
HTTP REQUEST

POST /aaa HTTP/1.1  
Content-Type:multipart/mixed;boundary=MIME\_boundary  
Content-Length:nnnn

--MIME\_boundary  
Content-Type:text/xml;charset=UTF-8  
Content-Transfer-Encoding:8bit  
SOAPAction:"SOAP Action URI"  
X-SOAP-Type:Request

PART 1

<s:Envelope>  
 <--SOAP Request-->  
</s:Envelope>

--MIME\_boundary  
Content-Type:text/xml;charset=UTF-8  
Content-Transfer-Encoding:8bit  
X-SOAP-Type:Response

PART 2

<s:Envelope>  
 <--SOAP Response-->  
</s:Envelope>

--MIME\_boundary  
Content-Type:text/xml;charset=UTF-8  
Content-Transfer-Encoding:8bit  
X-SOAP-Type:Response

PART 3

<s:Envelope>  
 <--SOAP Response-->  
</s:Envelope>

--MIME\_boundary  
Content-Type:text/xml;charset=UTF-8  
Content-Transfer-Encoding:8bit  
X-SOAP-Type:Response

PART 4

<s:Envelope>  
 <--SOAP Response-->  
</s:Envelope>

--MINE\_boundary--



## FIG.12

### HTTP RESPONSE

HTTP/1.1 200 OK  
Content-Type:multipart/mixed;boundary=MIME\_boundary  
Content-Length:nnnn

--MIME\_boundary  
Content-Type:text/xml;charset=UTF-8  
Content-Transfer-Encoding:8bit  
SOAPAction:"SOAP Action URI"  
X-SOAP-Type:Request

PART 1

<s:Envelope>  
 <--SOAP Request-->  
</s:Envelope>

--MIME\_boundary  
Content-Type:text/xml;charset=UTF-8  
Content-Transfer-Encoding:8bit  
X-SOAP-Type:Response

PART 2

<s:Envelope>  
 <--SOAP Response-->  
</s:Envelope>

--MIME\_boundary  
Content-Type:text/xml;charset=UTF-8  
Content-Transfer-Encoding:8bit  
X-SOAP-Type:Response

PART 3

<s:Envelope>  
 <--SOAP Response-->  
</s:Envelope>

--MIME\_boundary  
Content-Type:text/xml;charset=UTF-8  
Content-Transfer-Encoding:8bit  
X-SOAP-Type:Response

PART 4

<s:Envelope>  
 <--SOAP Response-->  
</s:Envelope>

--MIME\_boundary--

## FIG.13

### EXEMPLARY PART DESCRIBING CLIENT COMMAND

```
Content-Type: text/xml; charset=UTF-8
Content-Transfer-Encoding: 8bit
X-SOAP-Type : Request
SOAPAction: "http://www.foo.com/ server/ errorNotification"

<s:Envelope
  xmlns:s="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:se="http://schemas.xmlsoap.org/soap/encoding/"
  xmlns:n="http://www.foo.com/header"
  xmlns:ns="http://www.foo.com/server"
  s:encodingStyle="http://schemas.xmlsoap.org/soap/encoding">

  <s:Header>
    <n:Request ID> 12345 </n:Request ID>
  </s:Header>
  <s:Body>
    <ns:Trouble Notification>
      <ErrorID> 1111 </ErrorID>
      <Description>Hard Disk Drive Trouble </Description>
    </ns:Trouble Notification>
  </s:Body>
</s:Envelope>
```

## FIG.14

### EXEMPLARY PART DESCRIBING RESPONSE TO CLIENT COMMAND

Content-Type: text/xml; charset=UTF-8  
Content-Transfer-Encoding: 8bit  
X-SOAP-Type : Response

```
<s:Envelope
  xmlns:s="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:se="http://schemas.xmlsoap.org/soap/encoding/"
  xmlns:n="http://www.foo.com/header"
  xmlns:ns="http://www.foo.com/server"
  s:encodingStyle="http://schemas.xmlsoap.org/soap/encoding">

  <s:Header>
    <n:Request ID> 12345 </n:Request ID>
  </s:Header>
  <s:Body>
    <ns:Trouble Notification Response>
      <Reception Result> OK </Reception Result>
    </ns:Trouble Notification Response>
  </s:Body>
</s:Envelope>
```

## FIG.15

### EXEMPLARY PART DESCRIBING SERVER COMMAND

```
Content-Type: text/xml; charset=UTF-8
Content-Transfer-Encoding: 8bit
X-SOAP-Type : Request
SOAPAction: "http://www.foo.com/ client/getTemperature"

<s:Envelope
  xmlns:s="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:se="http://schemas.xmlsoap.org/soap/encoding/"
  xmlns:n="http://www.foo.com/header"
  xmlns:nc="http://www.foo.com/client"
  s:encodingStyle="http://schemas.xmlsoap.org/soap/encoding">

  <s:Header>
    <n:Request ID> 98765 </n:Request ID>
  </s:Header>
  <s:Body>
    <nc:Temperature Sensor Value Acqisition>
      <SensorID> 3 </SensorID>
    </nc:Temperature Sensor>
  </s:Body>
</s:Envelope>
```

## FIG.16

### EXEMPLARY PART DESCRIBING RESPONSE TO SERVER COMMAND

Content-Type: text/xml; charset=UTF-8  
Content-Transfer-Encoding: 8bit  
X-SOAP-Type : Response

```
<s:Envelope
  xmlns:s="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:se="http://schemas.xmlsoap.org/soap/encoding/"
  xmlns:n="http://www.foo.com/header"
  xmlns:nc="http://www.foo.com/client"
  s:encodingStyle="http://schemas.xmlsoap.org/soap/encoding">

  <s:Header>
    <n:Request ID> 98765 </n:Request ID>
  </s:Header>
  <s:Body>
    <nc:Temperature Sensor Value Acqisition Response>
      <Temperature> 52 </Temperature>
    </nc:Temperature Sensor Value Acqisition Response>
  </s:Body>
</s:Envelope>
```

FIG.17

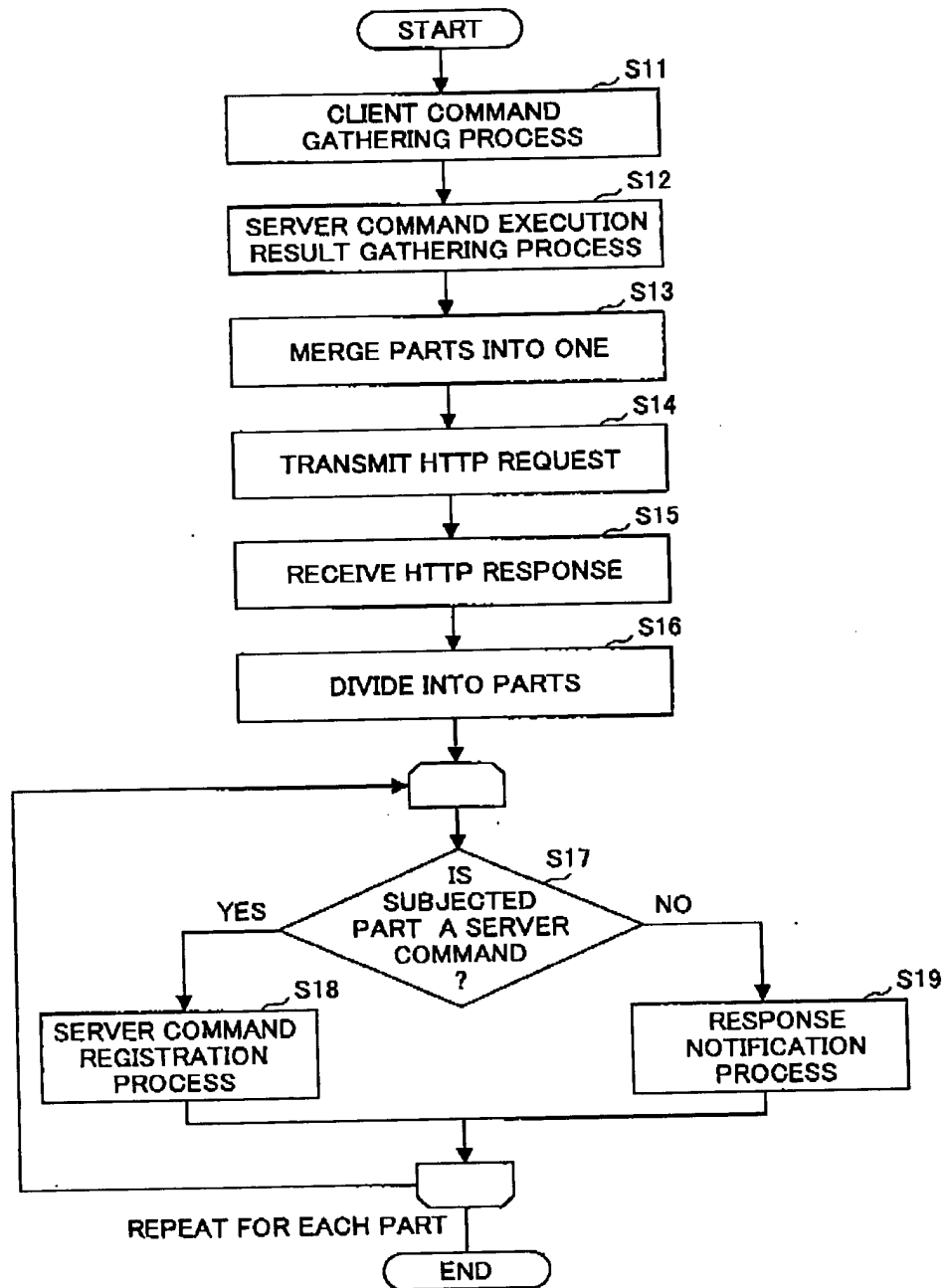


FIG.18

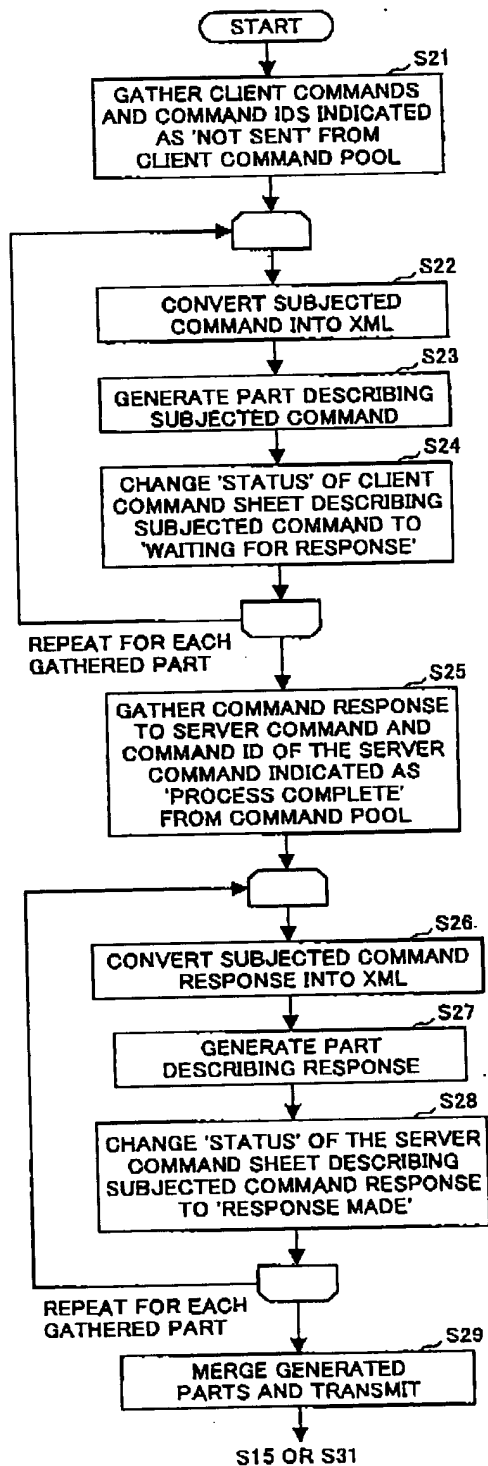


FIG.19

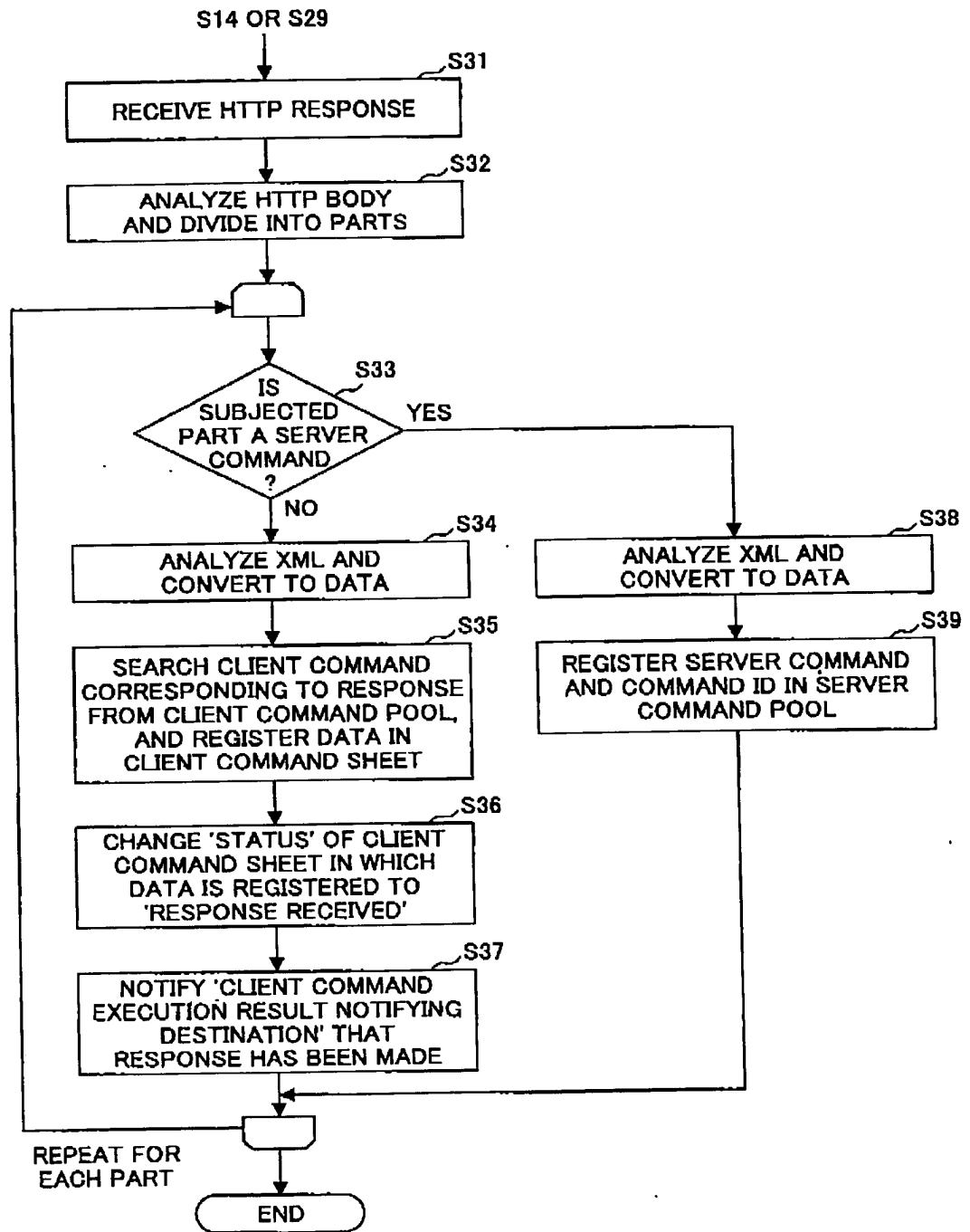




FIG.20

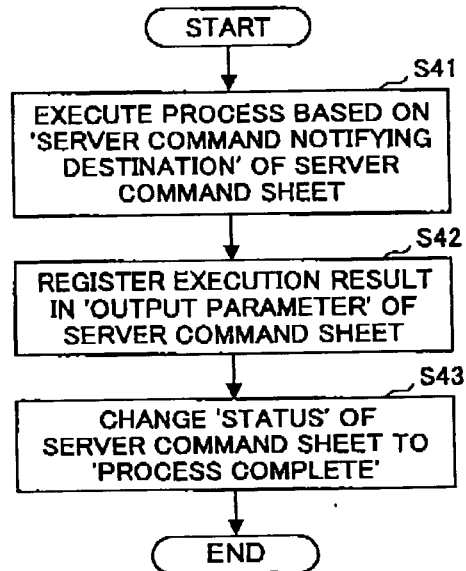


FIG.21

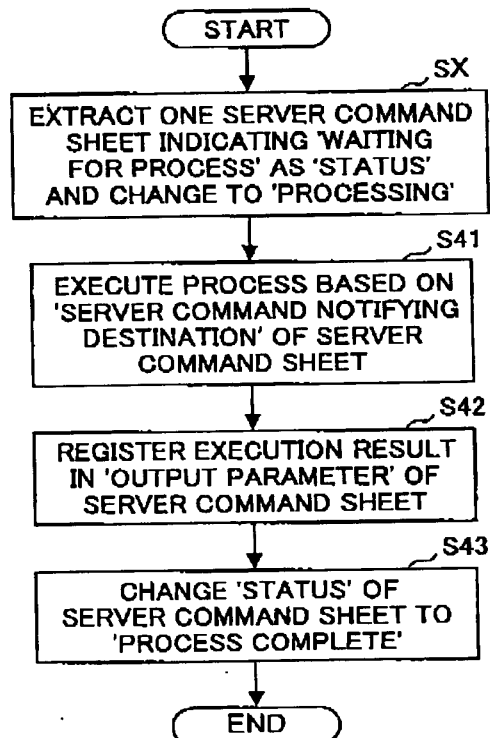
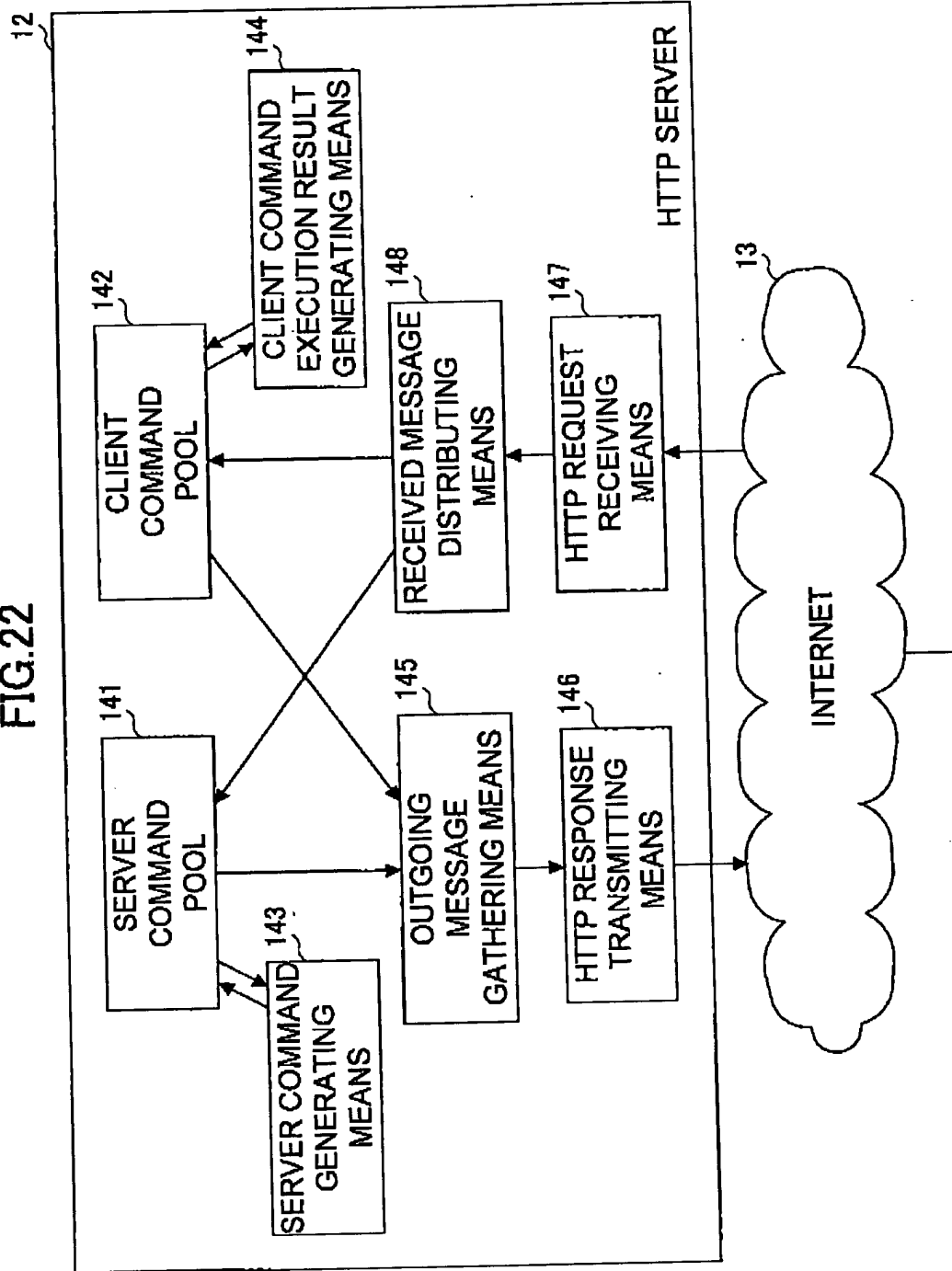


FIG.22



## FIG.23

### SERVER COMMAND SHEET IN HTTP SERVER

COMMAND ID  
METHOD NAME (e.g., TROUBLE NOTIFICATION)  
INPUT PARAMETER (e.g., TROUBLE CONTENT)  
STATUS (INITIAL VALUE: NOT PROCESSED)  
SERVER COMMAND EXECUTION  
RESULT NOTIFYING DESTINATION  
OUTPUT PARAMETER  
(BLANK UNTIL RESPONSE IS ACQUIRED)

## FIG.24

### CLIENT COMMAND SHEET IN HTTP SERVER

COMMAND ID  
METHOD NAME (e.g., COUNTER ACQUISITION)  
INPUT PARAMETER  
STATUS (INITIAL VALUE: NOT PROCESSED)  
OUTPUT PARAMETER  
(BLANK UNTIL PROCESS IS COMPLETED)  
CLIENT COMMAND NOTIFYING DESTINATION

FIG.25

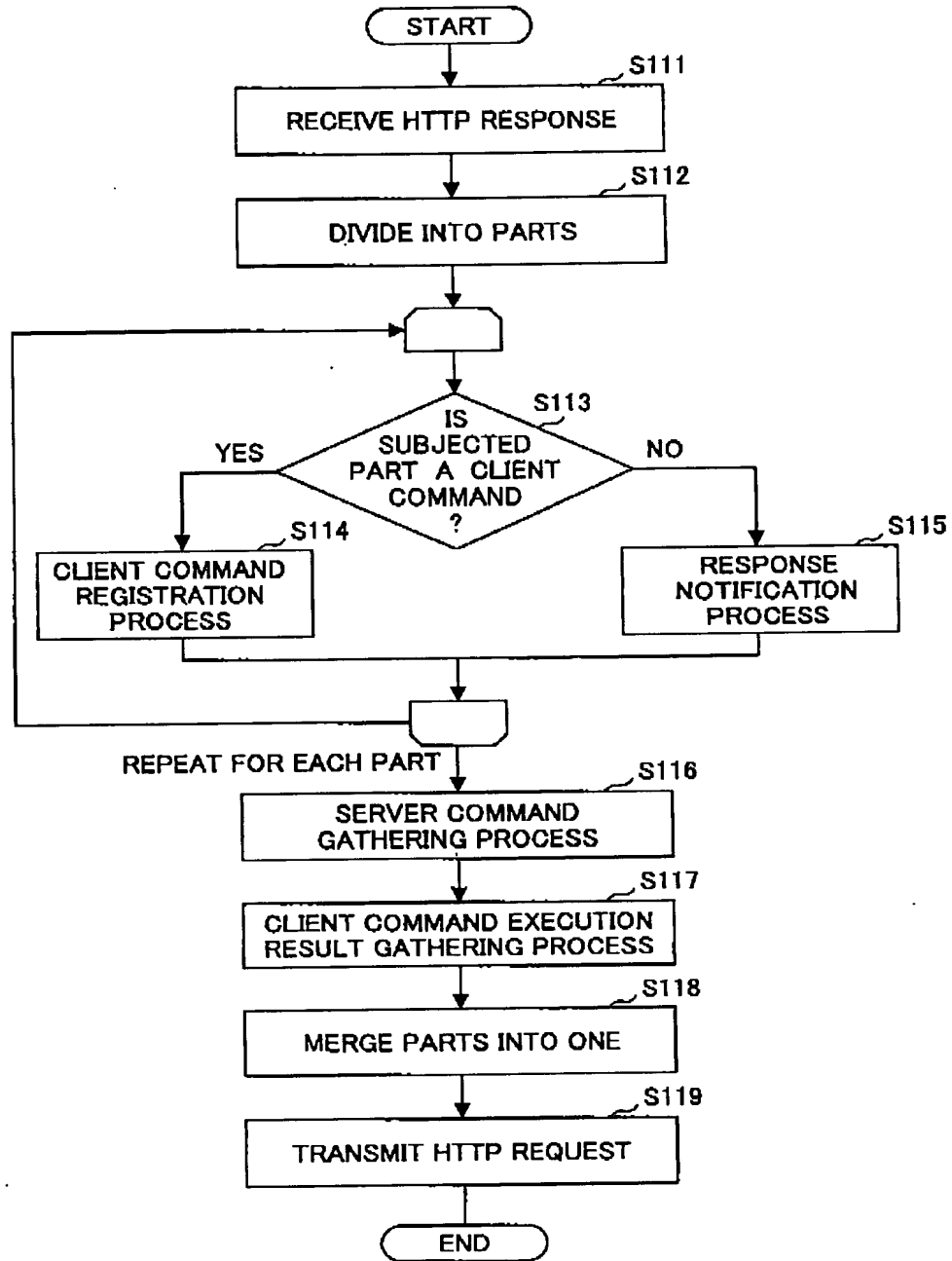


FIG.26

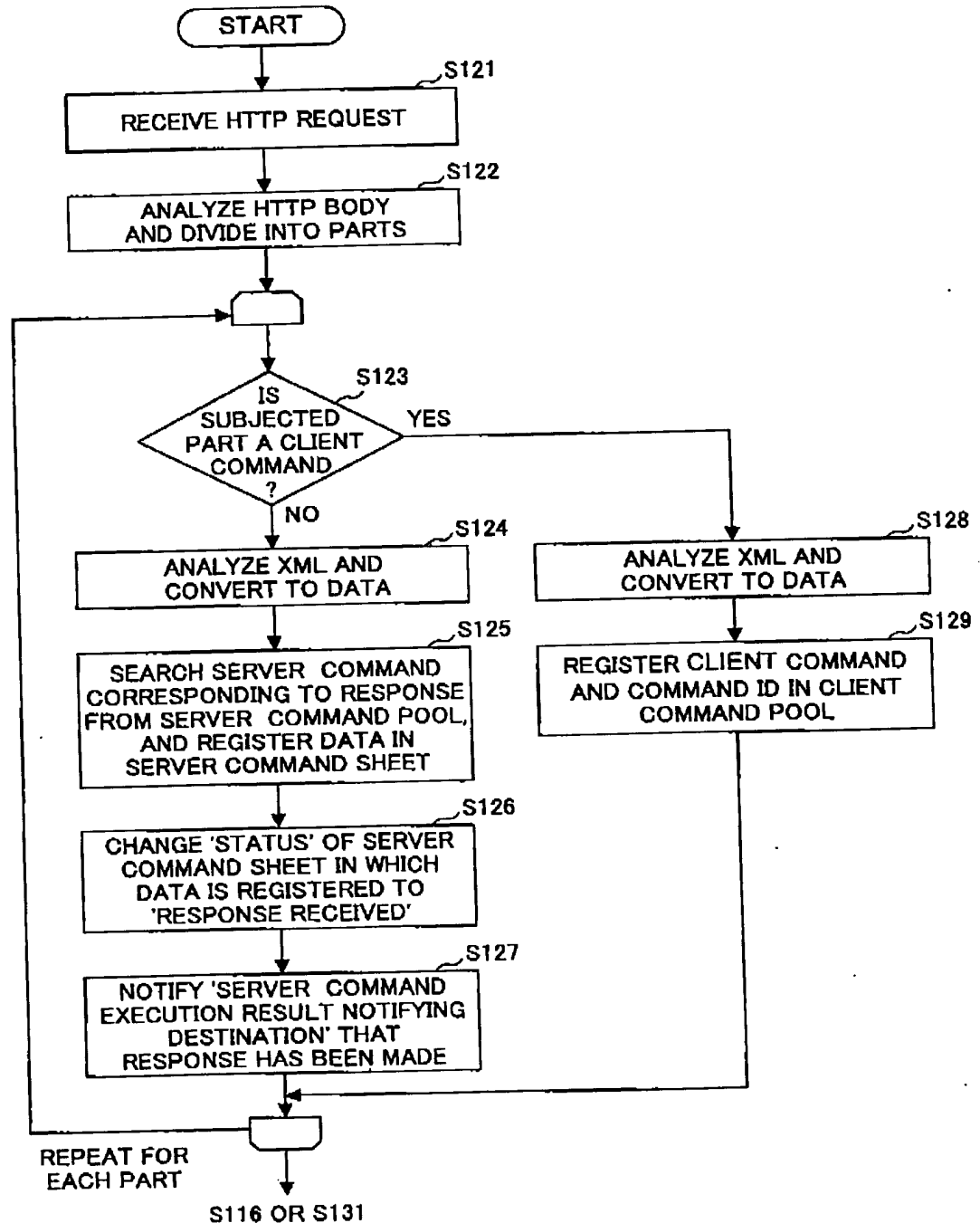


FIG.27

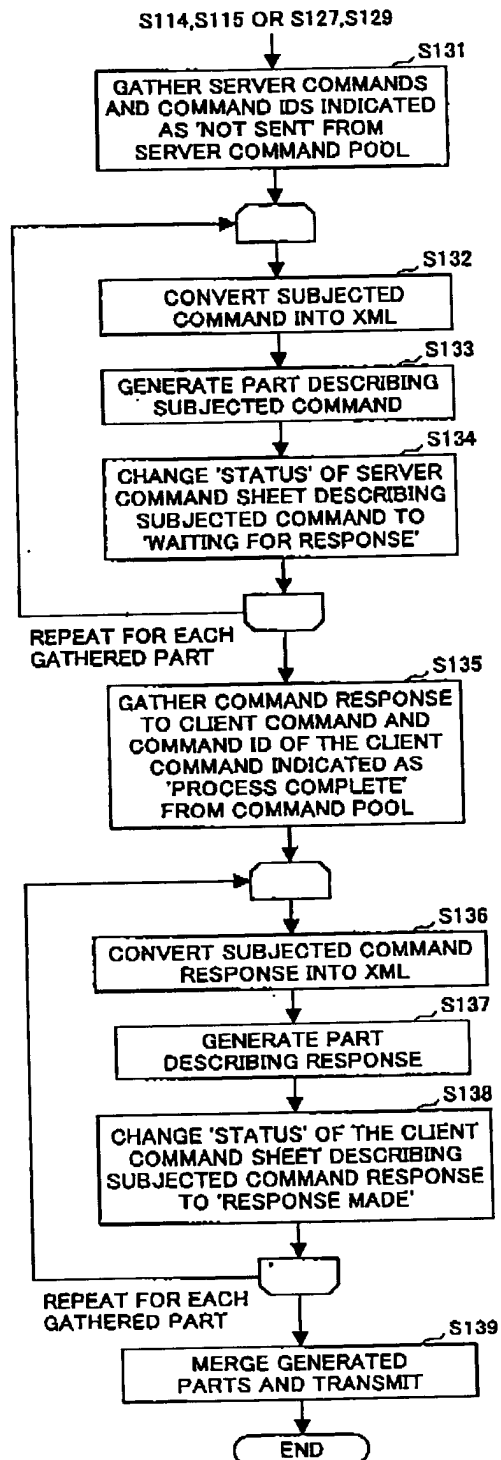


FIG.28

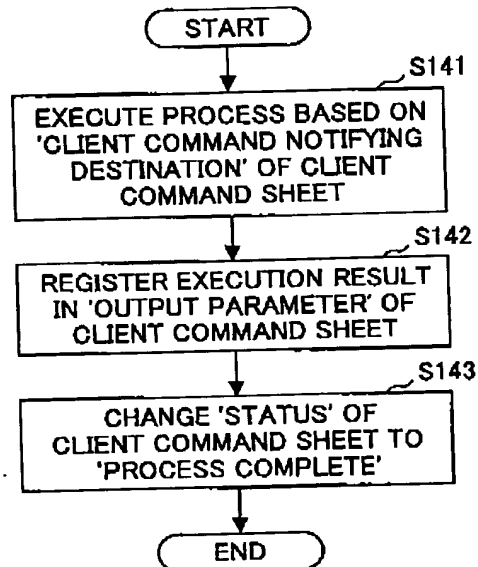


FIG.29

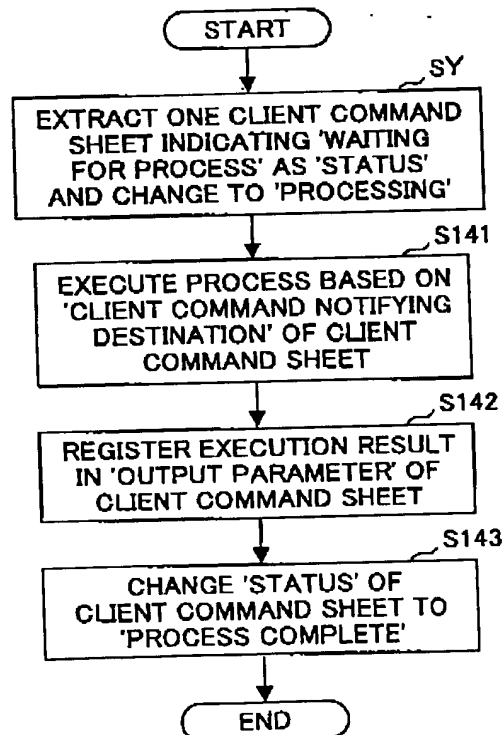


FIG.30

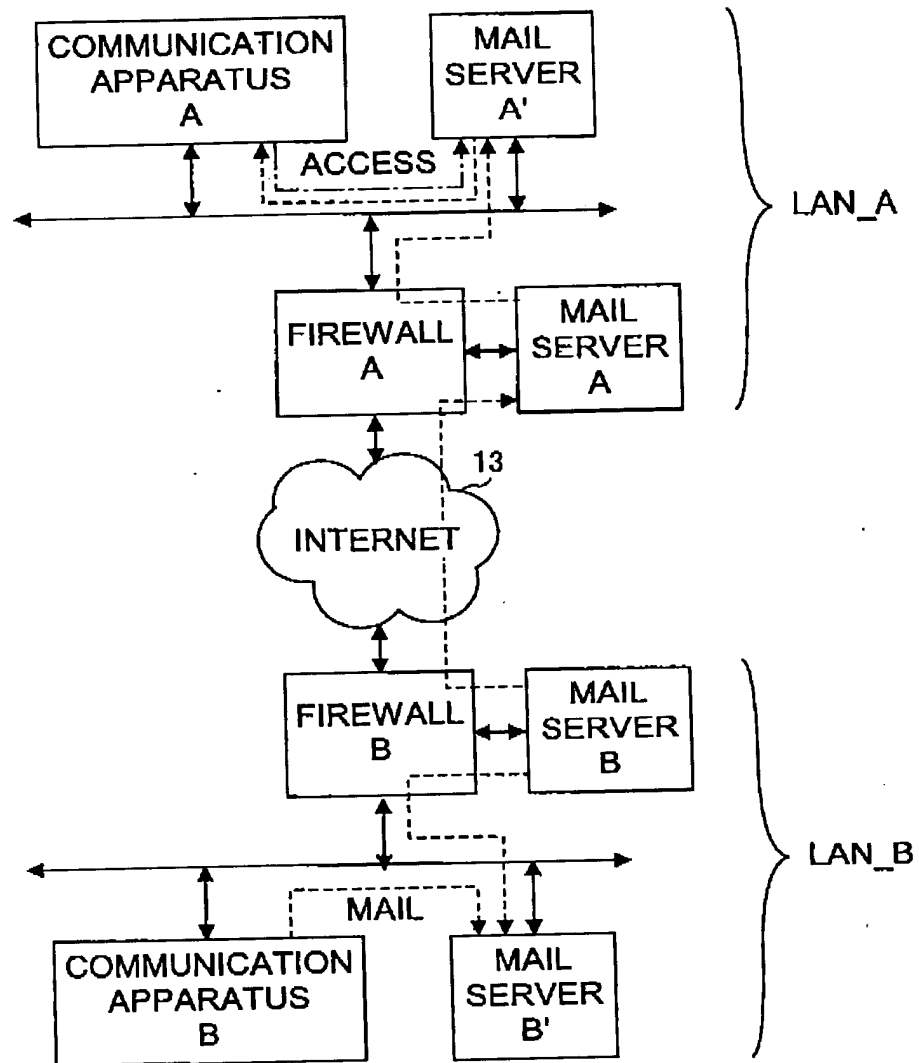




FIG.31A

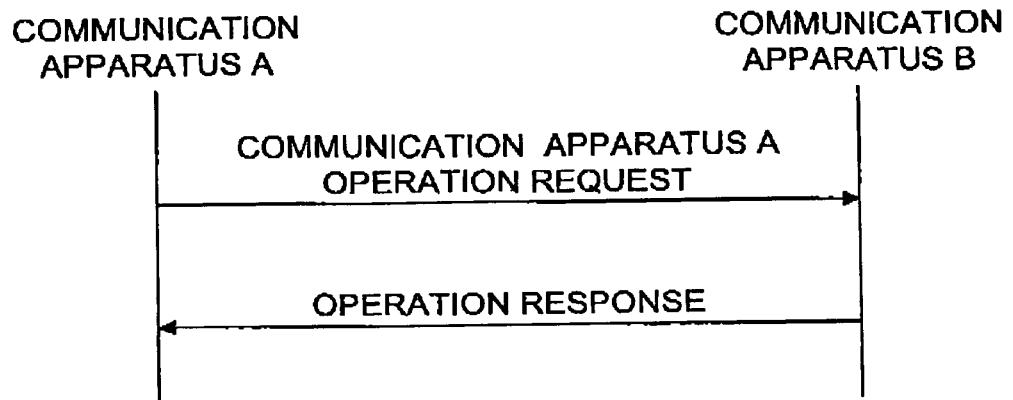


FIG.31B

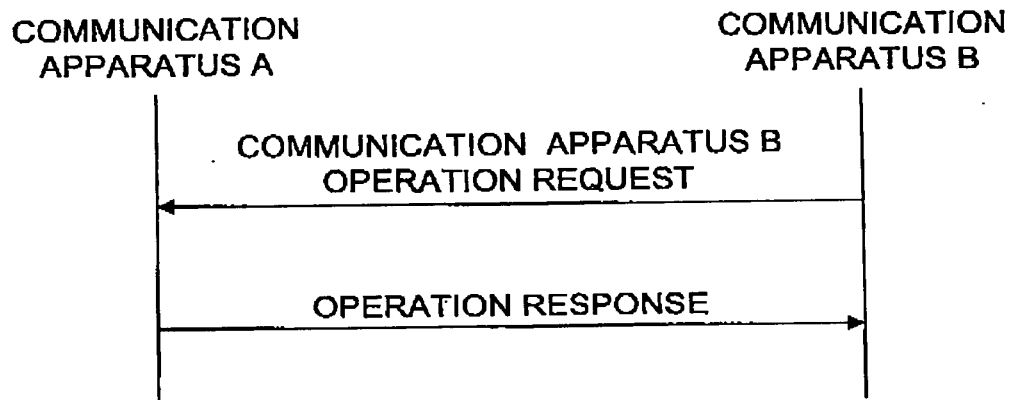


FIG.32

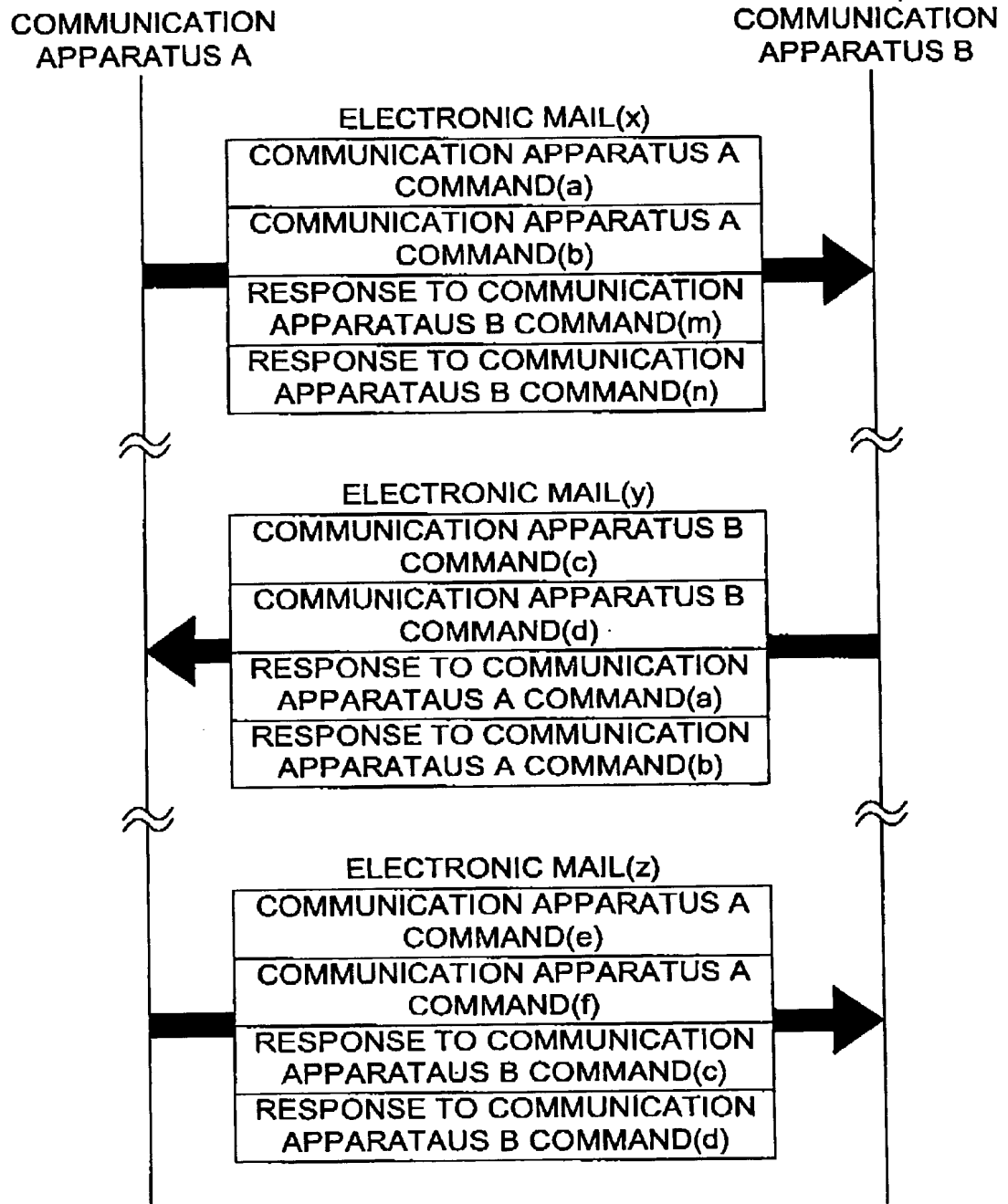


FIG.33

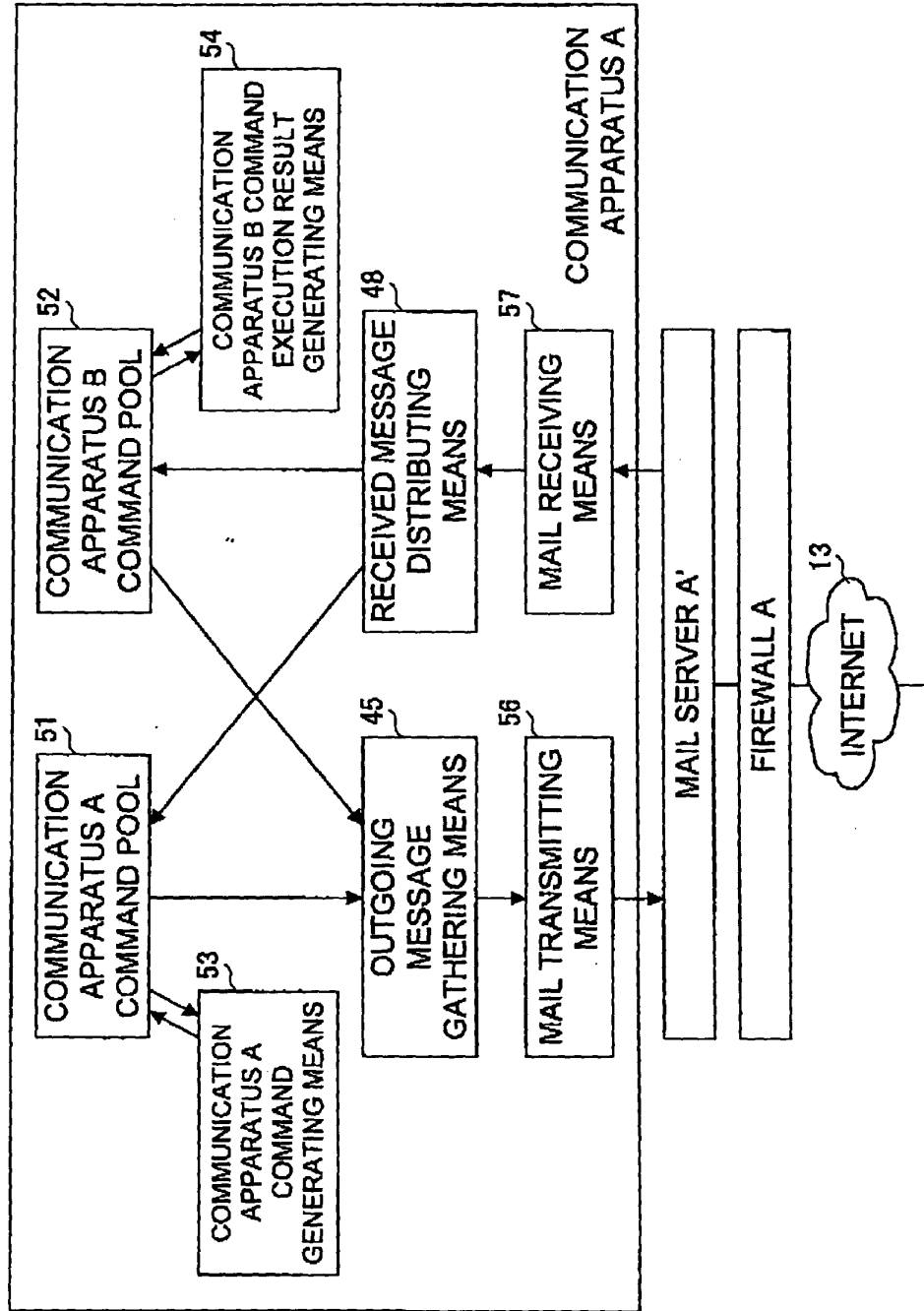


FIG.34

From: deviceA@foo.com  
To: deviceB@bar.com  
Subject: Multi Message #0000001  
Date: Web, 30 Jul 2003 10:00:00 +0900  
Content-Type:multipart/mixed;boundary=MIME\_boundary  
Content-Length:nnnn

--MIME\_boundary  
Content-Type:text/xml;charset=iso-2022-jp  
Content-Transfer-Encoding:7bit  
SOAPAction:"SOAP Action URI"  
X-SOAP-Type:Request

<s:Envelope>  
 <--SOAP Request-->  
</s:Envelope>

PART 1

--MIME\_boundary  
Content-Type:text/xml;charset=iso-2022-jp  
Content-Transfer-Encoding:7bit  
X-SOAP-Type:Response

<s:Envelope>  
 <--SOAP Response-->  
</s:Envelope>

PART 2

--MIME\_boundary  
Content-Type:text/xml;charset=iso-2022-jp  
Content-Transfer-Encoding:7bit  
X-SOAP-Type:Response

<s:Envelope>  
 <--SOAP Response-->  
</s:Envelope>

PART 3

--MIME\_boundary  
Content-Type:text/xml;charset=iso-2022-jp  
Content-Transfer-Encoding:7bit  
X-SOAP-Type:Response

<s:Envelope>  
 <--SOAP Response-->  
</s:Envelope>

PART 4

--MINE\_boundary--

FIG.35

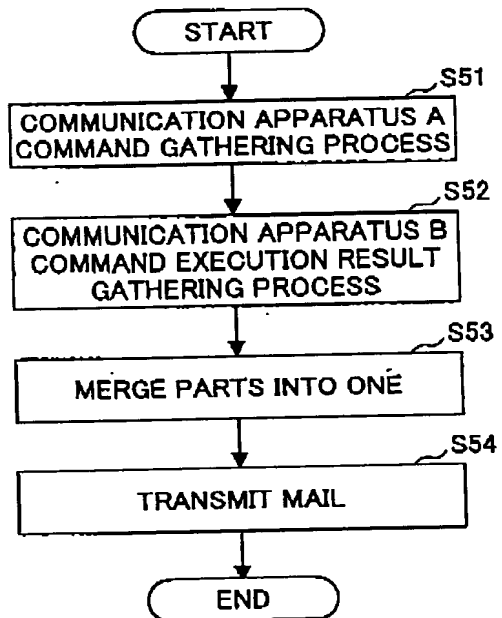


FIG.36

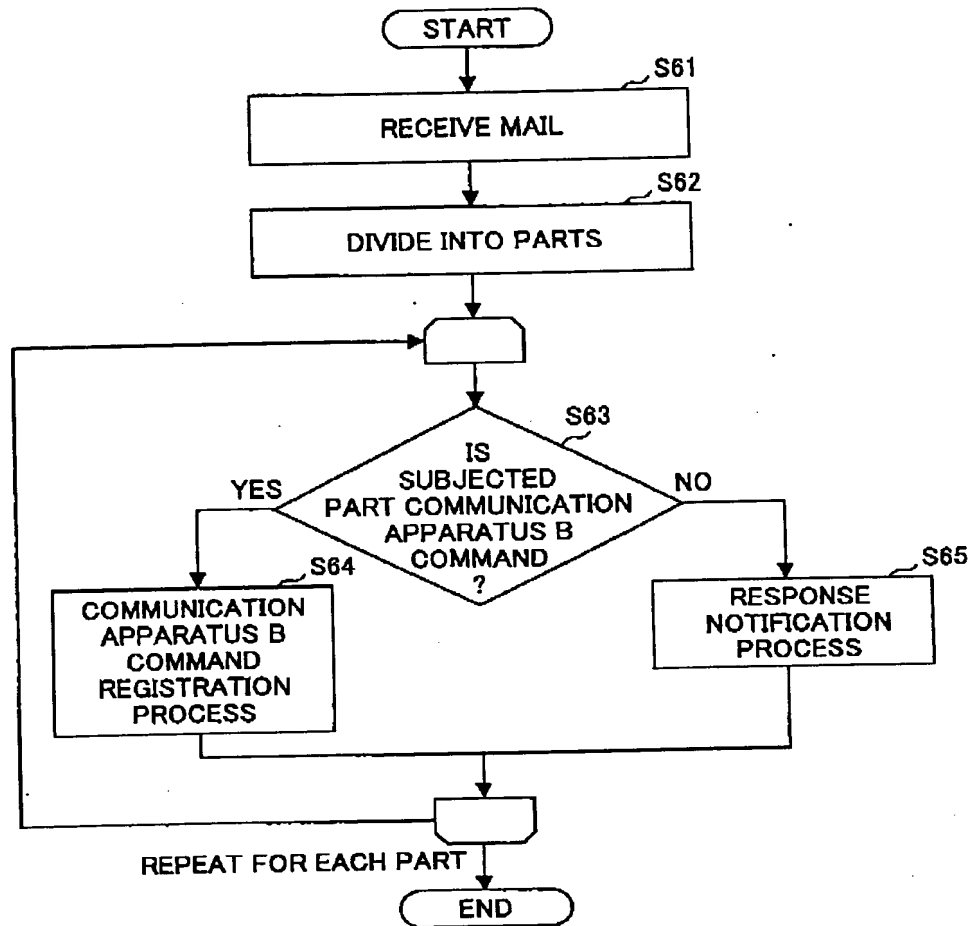


FIG.37

